TANK NOTES

STATE OF NEW MEXICO ENVIRONMENT DEPARTMENT

... A Newsletter from the Underground Storage Tank Bureau

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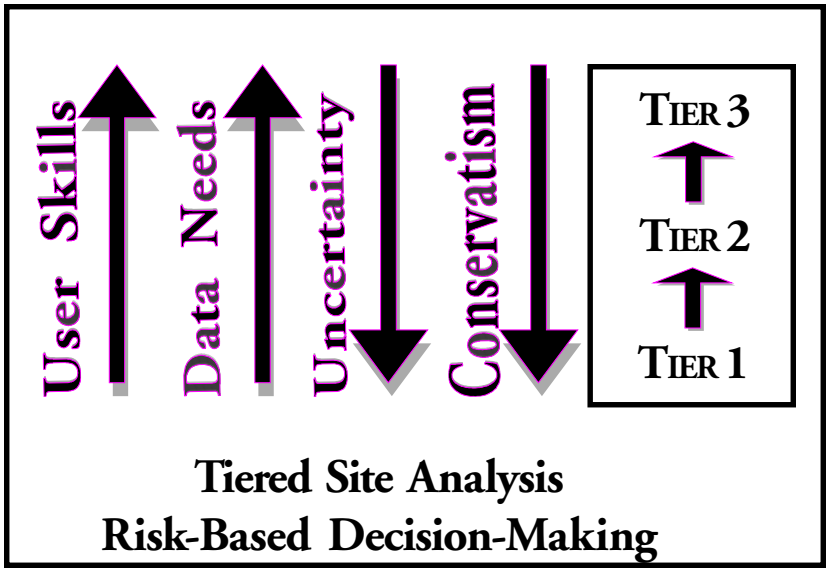
Consultants Need Training in NM Risk Approach

Consultants assisting tank owners in complying with the revised regulations are finding they now need new and different skills to evaluate leak sites. Risk-based decision-making has been incorporated into the corrective action regulations for UST systems containing petroleum. Atul Salhotra of Risk Assessment and Management (RAM) Group, the ASTM certified contractor that worked with the department on this project, is offering training in this new approach to corrective action. In 1998, the department featured Dr. Salhotra at its UST Conference, where he provided an overview of the New Mexico approach.

RAM Group is offering two in-depth training sessions in Albuquerque: March 29-31 and May 31-June 2. The training includes an overview of the New Mexico approach, evaluation of fate and transport of contaminants, and hands-on training in the user-friendly computational and reporting software developed by the department. To get more information about the training, please contact the Ram Group directly at (713) 784-5151.

The revised Underground Storage Tank Regulations became effective on February 2, 2000. The *Guidelines for Corrective Action* were approved on March 13, 2000.



Legal Action Facing "Deadbeat" Tank Owners

December 22, 1999 was the deadline for permanently closing or upgrading UST systems that were put into temporary closure because they did not meet 1998 requirements. Notices of Violation or "NOVs" were issued to owners of all temporarily closed UST systems that did not meet the December 22 deadline. The NOVs assessed a penalty and allowed a 30-day period in which owners could take one of the two actions just specified.

The owners of 49 facilities did not take the required action within 30 days. These cases have been referred to the Environment Department's Office of General Counsel for civil enforcement action.

TANK NOTES

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This newsletter is for the UST owner/operator population and is provided as a general information guide only. It is not intended to replace, interpret or modify manufacturers' protocols, or the rules, regulations or requirements of local, state or federal government, nor is it intended as legal or official advice. The opinions expressed in articles written by NMED staff and others are those of the authors and do not necessarily reflect those of NMED. We welcome your comments and suggestions. Send address changes and correspondence to: New Mexico Environment Department, Underground Storage Tank Bureau, Harold Runnels Building, 1190 St. Francis Drive, P.O. Box 26110, Santa Fe, New Mexico 87502. Check out the USTB website at www.nmenv.state.nm.us/ust/ustbtop.html

Notes from the Chief

By Stephen G. Reuter, Chief, UST Bureau

Let me be among the last to wish you all a Happy New Year! It's a start to a new millennium and an end to an old century. Other new beginnings coincident with this time of transition include the implementation of the newly revised Underground Storage Tank Regulations, 20 NMAC 5. The most significant changes are to Part 17, which includes the competitive bid requirements, and Part 12, now modified to incorporate risk based decision making into corrective action. Part 17 became effective on January 31, 2000, and Parts 1 through 16 became effective February 2, 2000. Also, the December 22, 1999, deadline to finalize the status of temporarily closed USTs has come and gone.

The new year heralds a change in the role of the Underground Storage Tank Bureau as well. The Prevention and Inspection Program will be more active in enforcement activities and is participating in an EPA study to determine the effectiveness of the 1998 upgrade requirements.

The Remedial Action Program and Financial Management Program will be taking advantage of the expanded "toolbox" afforded by the new regulations as it continues management of corrective action statewide.

Joyce Shearer, Ph.D., started her new position as Manager of the Remedial Action Program on March 6. Dr. Shearer has been with the bureau for three years in the District One office in Albuquerque. My staff is available to answer any questions or concerns as we transition into the new regulations. So, please do not hesitate to contact your project manager or call me at (505) 827-0185.

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Inventory Control and Tightness Testing as a Release Detection Method

By John Cochran, Inspector, Prevention/Inspection Program, UST Bureau

Questions have arisen about the length of time inventory control combined with tank tightness testing every five years (combination method) can be used as a leak detection method. The combination method can be used for a maximum of 10 years after the tank is installed or upgraded with corrosion protection or December 22, 1998, whichever is later. (This time period applies to the compliance status of the **tank only**, not the entire UST system.) After this time period you must use an approved monthly monitoring method such as **S**tatistical **I**nventory **R**econciliation (SIR), automatic tank gauging, vapor or ground water monitoring, interstitial monitoring, or another approved method.

Let's look at some sample cases that will illustrate when you can and can't use the combination method:

• A steel tank installed in 1975 is upgraded in 1994 with corrosion protection (or internally lined) and spill and overfill protection. This system can use the combination method until 2004 (10 years following the date the tank has corrosion protection). After 2004, the UST must use a monthly monitoring method.

• A steel tank installed in 1981 has its piping upgraded and spill and overfill added in 1993, but the tank is not upgraded with corrosion protection until 1996. This system can use the combination method until 2006 (10 years following the date the tank has corrosion protection). After 2006, the UST must use a monthly monitoring method.

• A steel tank is upgraded with corrosion protection in 1986 (or the tank is made of noncorroding material, such as fiberglass, and installed in 1986) but the piping, spill, and overfill upgrades were not added until 1995. This system could used the combination method only until December 22, 1998 (the later of 10 years after corrosion protection was installed or December 22, 1998). A monthly monitoring method must be used after December 22, 1998.

• A steel tank with corrosion protection (STIP3 or ACT 100), or a fiberglass tank, is installed in 2000. This system can use the combination method until 2010 after which a monthly monitoring method must be used.

• What about tanks of 1,000 gallons or less? Small tanks can use the combination method, subject to the above standards and timelines, or monthly monitoring. Another alternative is manual tank gauging. If you have a used oil tank with a capacity of 1,000 gallons or less you can continue to use manual tank gauging as your release detection method. Remember, manual tank gauging and the combination method are two separate leak detection methods.

Tanks ranging in capacity from 1,001 to 2,000 gallons that use a variant of the combination method (combined method of manual tank gauging with tank tightness testing every five years) are subject to the same qualifications as larger tanks. A monthly monitoring method must be used either 10 years after the date the tank has corrosion protection or December 22, 1998, whichever is later.

A note about tank tightness testing. Some owners and operators think that using the tracer method is the same as vapor monitoring. IT IS NOT! The tracer method is not an approved vapor monitoring method and is approved for tank and line tightness tests only.

For those of you in managerial positions, please pass this information on to your UST compliance personnel. Inspectors will be contacting these people for leak detection records and they need to know when your company has to begin using a monthly monitoring release detection method.

If you have any additional questions, please contact the UST Bureau.

Q & A: Risk-Based Decision Making in NM

What is Risk-Based Decision Making (RBDM) and how does it relate to Risk-Based Corrective Action (RBCA)?

RBDM and RBCA are two terms for the same thing. They both refer to a consistent decision-making process for the assessment of and response to a petroleum release, with the goal of protecting human health and the environment. The Environment Department is using the RBDM name, as EPA has, to emphasize the decision making process.

When do the RBDM regulations become effective?

Revised Part 12 (20 NMAC 5.12) "Corrective Action for UST Systems Containing Petroleum Products," became effective on February 2, 2000. This is the part of the UST regulations that has incorporated the principles of RBDM.

Who is providing training for the UST Bureau?

Risk Assessment and Management Group, Inc. is providing internal training for the members of the UST Bureau's Remedial Action Program. This firm has provided expertise to the Bureau in developing the RBDM approach.

Is training available for the RBDM regulations?

Yes. Refer to the UST Bureau's web page (www.nmenv.state.nm.us/ust/ustbtop.html) or to the announcement on the facing page of this issue of *Tank Notes* for the latest on "private sector" training opportunities.

Will the UST Bureau be revising the current UST Soil/Water Sampling & Disposal Guidelines to supplement the new regulations?

Yes, the old guidelines are being revised and made Chapter One of the new, expanded *Guidelines for Corrective Action*, which incorporates RBDM. A draft is currently available on the Bureau's web page. A final version of these guidelines should be released in March.

Will there be standardized forms associated with the new RBDM regulations?

Yes, these forms are currently under development and should be available in early March. The forms will be available electronically on the UST Bureau's web site and will also be presented as an attachment to the *Guidelines for Corrective Action.*

What fate and transport models will the UST Bureau accept for a Tier 2 evaluation?

The UST Bureau will accept any fate and transport model that is presented in the ASTM document entitled, "RBCA Fate and Transport Models: Compendium and Selection Guidance." The use of any model other than the ones presented in this document will require prior approval by the Bureau. For convenience, the Bureau is providing free, computational software that incorporates the same models and equations that were used to develop the new Tier 1 target levels.

What software and models will the UST Bureau be using for RBDM?

The UST Bureau has used the equations and models presented in Chapter 4 of the *Guidelines for Corrective Action*. The models include SESOIL for the soil to ground water pathway, Domenico for the groundwater transport pathway, and Summers to establish a ground water mixing zone concentration. The Bureau will continue to use these same equations and models in reviewing RBDM evaluations.

How will the UST Bureau manage old sites under the new regulations?

The Bureau will review these sites on a case by case basis.

Is the ranking or priority of a site going to change with the use of RBDM?

The site prioritization system is being updated to reflect receptors not scored previously, including aquifer impact and proximity to "source water" or wellhead protection areas. The Bureau will re-rank sites, starting with the highest priority sites. Sites with these types of impacts will very likely move up the priority list.

Who do I talk to if I have more questions about RBDM?

Check the bureau's web pages and read the information there. Read the regulations and draft guidance. Then, if you still have questions, contact your Bureau project manager.

The tiered approach to setting target concentrations provides the same level of protection at each tier but with different margins of safety. Tier one has highest margin of safety because there is the least amount of site specific information. Tier 3 has the smallest margin of safety because there are the fewest unknowns.

RBDM graphics based on those provided by RAM Group, Inc.

New on the Web

by Jenny Smith, Bureau Webmaster

- New Mexico UST Regulations, as amended effective 1/31/00 and 2/2/00

http://www.nmenv.state.nm.us/NMED_regs/ust_regs.html

- Draft Guidelines for Corrective Action

http://www.nmenv.state.nm.us/ust/lustrem.html

- Remediation Equipment Inventory Results

ftp://www.nmenv.state.nm.us/docs/ust/equipinv.txt

- Link to EPA Publication: *Financing Underground Storage Tank Work: Federal and State Programs*

http://www.epa.gov/swerust1/pubs/ustfinan.pdf

- Link to University of Wisconsin-Madison Publication: *Underground Tank Technology Update*

http://epdwww.engr.wisc.edu/uttu/

- *Tank Notes* back issues
  Summer/Fall 1998
  Winter 1998/1999
  Summer/Fall 1999

http://www.nmenv.state.nm.us/ust/tanknote.html

Leak o' the Week

Report releases to the following staff during working hours. For emergencies during evenings and weekends, call the NMED emergency number: 827-9392

Mar 20-24	Steve Jetter	841-9461
Mar 27-31	Tom Leck	841-9479
Apr 3-7	Tim Eckert	827-2914
Apr 10-14	Jane Cramer	841-9477
Apr 17-21	Steve Grietens	841-9349
Apr 24-28	David Nye	841-9478
May 1-5	Brian Salem	827-2926
May 8-12	Norman Pricer	841-9189
May 15-19	Steve Jetter	841-9461
May 22-26	Tom Leck	841-9479
May 29-Jun 2	Tim Eckert	827-2914
Jun 5-9	Jane Cramer	841-9477
Jun 12-16	Steve Grietens	841-9349
Jun 19-23	David Nye	841-9478
Jun 26-30	Brian Salem	827-2926
July 3-7	Norman Pricer	841-9189
July 10-14	Steve Jetter	841-9461
July 17-21	Tom Leck	841-9479
July 24-28	Tim Eckert	827-2914
Jul 31- Aug 4	Jane Cramer	841-9477
Aug 7-11	Steve Grietens	841-9349
Aug 14-18	David Nye	841-9478
Aug 21-25	Brian Salem	827-2926
Aug 28- Sept 1	Norman Pricer	841-9189
Sept 4-8	Steve Jetter	841-9461
Sept 11-15	Tom Leck	841-9479
Sept 18-22	Tim Eckert	827-2914
Sept 25-29	Jane Cramer	841-9477

- *Tank Notes* and Maps now in PDF format

http://www.nmenv.state.nm.us/ust/tanknote.html
http://www.nmenv.state.nm.us/ust/maps.html

- UST Committee
  April-October 1999 Meeting Minutes

http://www.nmenv.state.nm.us/ust/ustcmin.html

- Competitive Bid Guidelines

http://www.nmenv.state.nm.us/ust/cafbid.html

Wellhead Protection on the Rise in NM

By Jennifer Wellman, Drinking Water Bureau, NMED

Editor's Note: Corrective action regulations for leaking underground storage tanks now require the owner or operator of a tank that experienced a release to identify any wellhead protection zones surrounding or near the tank and to report that information to the UST Bureau.

Nearly 80 percent of New Mexico's drinking water originates as groundwater from aquifers below the earth's surface. Although groundwater is an unseen and difficult to understand resource, groundwater protection is vital for public and watershed health. A community-based **Wellhead Protection Program** (WHPP) is an effective management tool to prevent groundwater pollution and safeguard the drinking water supply.

NMED's Drinking Water Bureau (DWB) is the primary contact for wellhead protection throughout New Mexico. The DWB has increased community participation in drinking water protection by providing technical assistance, identifying potential sources of contamination, and assisting local governments in creating wellhead protection programs throughout the state. Specific wellhead protection measures can include a sanitary seal on the wellhead, a cement pad sloping away from the well, and a fence or wellhouse to protect the well from vandalism and contamination.

Five Steps to Wellhead Protection

1. Form a community-based wellhead protection team.
2. Define the area to be protected.
3. Identify actual and potential sources of contamination.
4. Manage the wellhead protection zone.
5. Develop a plan for emergencies and for the future.

New Mexico communities have a vested interest in safeguarding their sources of drinking water. With a growing population and increased demands for safe, clean water, more communities are recognizing the need to create wellhead protection zones, enact long-term water resource plans, and implement best management practices that directly relate to the public water supply. Using a simple five-step process (see box), communities can establish wellhead protection programs for pollution prevention and drinking water quality protection.

For further information on wellhead protection programs or to obtain technical assistance and public outreach regarding Source Water Protection, contact Jennifer Wellman at the NMED Drinking Water Bureau at (505) 827-1400 ext.1012 or toll free 1-877-654-8720.

The Drinking Water Bureau plans to have the identity of all existing wellhead protection zones in New Mexico on the department's web page in the near future. Until then, contact Jennifer Wellman.

Governor Appoints Three to UST Committee

Governor Johnson has appointed three new members to the Underground Storage Tank Committee. Their names, the stakeholders they represent, and their telephone numbers are:

- **Royce O. Pearson**, Elected Local Government Official, 505 748-3311 x 279. Mr. Pearson is the northern New Mexico Marketing Coordinator for Navajo Refining Company and is a City Councilor in Artesia.
- **Richard M. Renn**, Corrective Action Official, 505 881-3196, email rrenn@mdmcorp.com. Mr. Renn is a Hydrogeologist with MDM Services Corp. in Albuquerque.
- **Gregory L. Ryan**, Fire Department Official, 505 891-5917. Mr. Ryan is Fire Commander with the Rio Rancho Department of Public Safety in Rio Rancho.

The committee was created in 1990 to oversee expenditures from the Corrective Action Fund. Outgoing committee members are Vincent Griego, Elected Local Government Official, and Paul Valencia, Fire Department Official. Dr. Bruce Thomson, Corrective Action Official, resigned from the committee last summer.

UST Owners Monitoring Impacts of MTBE

By Lorena Goerger, Anna Richards, and Brian Salem, UST Bureau

"MTBE" is a buzz-word of concern these days in UST circles throughout the country. Here are the issues and a look at the situation in New Mexico.

Methyl-tertiary-butyl-ether, or MTBE, is a fuel oxygenate that is added to gasoline at the refinery to enhance octane without adversely affecting air quality. It is used in place of lead-containing additives, including ethylene dibromide (EDB) and ethylene dichloride (EDC), in mid- and high-grade types of gasoline. MTBE was introduced to New Mexico in the mid-1980s to comply with changing federal and state air quality regulations. Unfortunately, MTBE is very soluble in water.

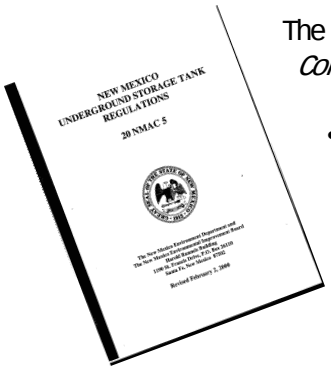
After MTBE was discovered in some city wells, the state of California decided to phase out the use of MTBE in fuel. Shortly thereafter, the U.S. Environmental Protection Agency (EPA) convened a blue ribbon panel to address MTBE issues and make some recommendations. EPA now recommends monitoring of MTBE at all leaking underground storage tank (LUST) sites nationwide.

This means "business as usual" in New Mexico. The Underground Storage Tank Bureau (USTB) has been requiring the monitoring of groundwater for MTBE at leak sites since the inception of the program in the 1980s. The USTB standard is 100 micrograms per liter and is set forth in Part 12 of the UST regulations. The state USTB standard is similar to a consumer advisory in that it is based on taste and odor impacts. It was adopted by the Environmental Improvement Board in July 1990. New Mexico is one of 25 states that have now established cleanup levels for MTBE in groundwater.

The bureau knows of approximately 144 LUST sites with MTBE contamination in groundwater. Investigations have shown the sources of this contamination to be releases from USTs, but MTBE contamination can also be traced to a wide variety of other sources, including aboveground storage tanks, pipelines, household disposal of small quantities of gasoline, and even evaporation into the atmosphere where MTBE combines with water vapor before falling as rain. As remediation at a LUST site progresses, all the contaminants of concern are monitored regularly, whether they are additives like MTBE or the usual benzene, ethylbenzene, toluene or xylene. If a site is in remediation with an active, engineered system in place and operating, all of these contaminants are being addressed. New Mexico has been actively monitoring MTBE in groundwater for more than 10 years, well before EPA came out with its consumer advisory. In this respect, New Mexico is in the forefront protecting human health and the environment.

In 1997, EPA issued a drinking water consumer advisory for MTBE at a range from 20-40 micrograms per liter. A **consumer advisory** is issued for taste and odor impacts, not for potential health problems, which would warrant a **health advisory**. EPA has not yet issued a health advisory for MTBE or a maximum contaminant level for MTBE due to the lack of conclusive evidence that it is a carcinogen. Given the hundreds of chemicals on the EPA's Drinking Water Contaminant Candidate List, is doubtful that EPA will have the necessary data to issue a health advisory for MTBE within the next decade.

Revised UST Regulations Now Available



The final revised Underground Storage Tank Regulations and *Guidelines for Corrective Action* are now in effect. They are available to you in three ways.

- The regulations can be downloaded off of the Environment Department's web pages at www.nmenv.state.nm.us
- Printed copies can be picked up at any of NMED's offices.
- The Underground Storage Tank (UST) Bureau will mail you copies if you call Jeanette Salazar at 505/827-2716.

Gary Blocker swaps Tanks for Tee-Offs and an Airstream

Adios, prevention/inspection

Gary Blocker, UST Bureau long-time inspector/supervisor in southeast New Mexico, has retired.
We thank him for his fine service and wish him well.

Check out the USTB website at www.nmenv.state.nm.us/ust/ustbtop.html

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